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Verfahren zum Kalibrieren einer elektronisch phasengesteuerten Gruppenantenne in Funk-Kommunikationssystemen

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Original Abstract: Erfindungsgemass werden zum Kalibrieren einer elektronisch phasengesteuerten Gruppenantenne in Funk-Kommunikationssystemen unter Verwendung eines für alle Referenzsignale gemeinsamen Referenzpunktes im Downlink von den einzelnen Antennenelementen der Gruppenantenne voneinander unterscheidbare Referenzsignale zeitgleich ausgestrahlt und nach dem Empfang an den gemeinsamen Referenzpunkt geeignet separiert.

Alerting Abstract WO A1

The method involves using a common reference point for all reference signals.

Distinguishable reference signals are radiated from the individual antenna elements (AE1-AEN) of the array for antenna calibration in the upward direction. The signals are suitably separated after reception at the common reference point (AR).

CDMA encoding and decoding is used for the reference signals.

USE - For calibrating electronic phase-controlled array antenna in mobile radio communications system.

ADVANTAGE - Considerably reduces the time to calibrate intelligent antennas in downlink..

Title Terms /Index Terms/Additional Words: CALIBRATE; METHOD; ELECTRONIC; PHASE; CONTROL; ARRAY; ANTENNA; RADIO; COMMUNICATE; SYSTEM; REDUCE; TIME; INTELLIGENCE; RADIATE; DISTINGUISH; REFERENCE; SIGNAL; INDIVIDUAL; ELEMENT; UP; DIRECTION; SEPARATE; AFTER; RECEPTION; COMMON; POINT

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Calibration method for electronic phase-controlled array antenna in a radio communications system considerably reduces the time to calibrate intelligent antennas in the downlink - involves radiating distinguishable reference signals from individual antenna elements for antenna calibration in upward direction, separating after reception at common reference point

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Patent Family (10 patents, 22 & countries)							
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001031744	A1	20010503	WO 2000DE3756	A	20001024	200131	B
DE 19951525	A1	20010607	DE 19951525	A	19991026	200132	E
AU 200119950	A	20010508	AU 200119950	A	20001024	200149	E
DE 19951525	C2	20020124	DE 19951525	A	19991026	200209	E
BR 200015016	A	20020618	BR 200015016	A	20001024	200249	E
			WO 2000DE3756	A	20001024		
EP 1234355	A1	20020828	EP 2000983055	A	20001024	200264	E
			WO 2000DE3756	A	20001024		
CN 1384989	A	20021211	CN 2000814932	A	20001024	200324	E
EP 1234355	B1	20030813	EP 2000983055	A	20001024	200355	E
			WO 2000DE3756	A	20001024		
DE 50003316	G	20030918	DE 50003316	A	20001024	200362	E
			EP 2000983055	A	20001024		
			WO 2000DE3756	A	20001024		
US 6693588	B1	20040217	WO 2000DE3756	A	20001024	200413	E
			US 2002111503	A	20020424		